

Hands-On

OSP Fault Locating - xDSL Install-Troubleshooting



Course Description

This 3-day Hands-On course will teach your technicians both OSP Fault Locating and xDSL Installation, Maintenance and Troubleshooting.

OSP Fault Locating and Cable Troubleshooting portion will teach technicians to operate and fully understand the menus on their testing and fault locating equipment. Students will learn loop parameters needed to provide the many services customers are demanding in today's communications world. There will be in-depth instruction on maintaining the outside plant and how to successfully locate problem areas. This will include resistive and capacitive faults, power influence, and other problems associated with analog and digital transmission.



All loop testing is reinforced with hand-on exercises and can be taken to the field if applicable.

The students will use state-of-the-art test equipment such as the, EXFO-635, Viavi ONX580 (HST3000), Dynatel 965DSPDSP-AMS, Sidekick Meter, and incorporate any meter(s) that students can bring to the session to use during the hands-on lab procedures throughout the course. Locating buried cables will also be covered and fault simulators will be used during the hands-on lab exercises to reinforce Real-World Experience.

Emphasis will be placed on how to effectively use OSP Test Equipment. Most technicians in the field today only utilize about 30 of this test instruments capabilities our goal is to have a 100 of their test instruments capabilities put to use in the field. No sales pitch in this course, just training! Our SMEs have the field experience to find the answers to real live scenarios, providing students with a Real-World Experience

This course is designed to give the attendees the knowledge of not only how to test with a fault locating meter, but most important, understand what the meter is telling them. All of the explanations of cable and faults are reinforced with hands-on exercises. This is done with actual cable to give a full understanding of the menus.

and

xDSL Installation, Maintenance and Troubleshooting portion will provide in-depth instruction for Installing, Maintaining and Troubleshooting DSL services. Attendees will learn the inner workings as to how the DSL works and the loop parameters required providing uninterrupted service.

This will include residential, commercial and industrial environments. This is a Hands-On course that uses state of the art testing equipment. Meters will be used to check loop parameters and will train your technicians Line pre-qualification, line performance, DSL customer-end equipment installation and troubleshooting is the primary focus of this course.

You can't afford to operate on a "plug and pray" basis in today's competitive market. Our SMEs have the field experience to find the answers to real live scenarios, providing students with a Real-World Experience.

Students Will Learn

- **OSP Fault Portion Topics**
- **Understand Fault Location**
- **Identify & Locate Faults in Copper "pic" Outside Plant Cables.**
- **Analyze a Faulted Cable Pair**
- **Select the Correct Test Set to Locate the Fault**
- **Locate Buried Cables**
- **Locate Resistive, Capacitive & Cross-Battery Faults using**
- **Multiple Test Sets.**
- **Cable Pair Balance**
- **Understand TDR Operation**
- **Understand Wideband Testing**
- **Use Advanced Trouble Analysis**
- **Incorporate Their Own Meter throughout the Hands-On Labs.**
- **Use Fault simulators in the Labs, providing Real-World Scenarios.**
- **Loop Parameters**
- **Operate and make the test equipment work for them**
- **How to identify Faults**
- **Choose the proper test equipment menu**
- **TDR Operation**
- **Pinpoint Fault Location**
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- **xDSL IMT Portion Topics**
- **DSL Applications**
- **Cable Channels Over the Copper Pair, Internet Access,**
- **Video on Demand, Video Conferencing, Voice Over IP, more...**
- **All Types of xDSL**
- **ADSL , ADSL2, ADSL2+, ISDL, HSDL, RADSL, SDSL, VDSL, VDSL2+, CDSL, UDSL**
- **DSL System Components & Configurations for Residential & Business Modems,**
- **Splitters, Filters, more**
- **Hands-on Exercises using Sunrise, EXFO, Fluke, JDSU (Acterna, TTC), DynaTel,**
- **Sidekick, and any additional meters to synchronize with DSLAM, and interpret results...**
- **Turn up Results Margin Capacity, Upstream, Downstream, Maximum Bit rates, more.**
- **DSL Loop Parameters & Cable Acceptance Distances, Speeds, Cable Pair-Testing**
- **and Qualifications.**
- **CAT5 / CAT6 Cable Preparation, Install & Testing Latest Standards, Tools, and**
- **Techniques used for cable installations, plus Speeds, Cable Testing and Qualifications.**
- **Hands-On Testing & Troubleshooting DSL Circuits, Test Equipment, and more...**
- **Troubleshooting Identify Customers Related Problems, Defective Lines and**
- **Equipment.**
- **And More**

Target Audience

Contractors, union craftsman, electricians, technicians, installers, splicers, LAN managers/administrators, end-users, engineers, facilities managers, architects and developers, systems engineers, telecom managers and anyone involved in repairing, installing, maintaining telephone OSP cables and xDSL Services.

Prerequisites

A basic understanding of Telecommunications.

Delivery Method

Instructor-Led with numerous Hands-On labs and exercises.

Equipment Requirements

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

Course Length

3 Days